

Psychotherapeutic Approach in the Management of Depressive Symptoms on Cognitive Task Performance among the Physically Challenged Students of Rehabilitation Centre, Ibadan, Nigeria

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Abstract

This study investigated psychotherapeutic approach in the management of depressive symptoms on the performance of cognitive task among the special need students of rehabilitation centre, Ibadan, Nigeria (male one hundred and eleven and female eight-nine). A self-constructed validated questionnaire was used to generate data. The t-test statistics was employed to test the three research hypotheses formulated while the adjusted post-mean score was performed on the achievement test scores. Findings indicated that there were significant differences in the signs and symptoms of depression exhibited by the experimental and the control groups. Further, better cognitive task performance by the experimental group due to reduction in the level of signs and symptoms of depression was revealed.

Keywords: Psychotherapeutic Management, Depressive Symptoms, Cognitive Task, Physically Challenged

Introduction

Individuals get depressed one time or the other, because life's ups and downs can put a strain on even the strongest person. Notably for some people, depression is real and ever present problem, and for such people, life can become a living nightmare.

Depression is a mood disorder that influences every aspect of one's daily life if one is depressed. This illness affects all segments of the population in given socio-economic group: children, adults and the elderly. It affects the body, mood and thoughts. Specifically, it affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things. It controls the body, mind, behaviour, emotional state and can even determine the ability to maintain relationships.

From the foregoing discourse, depression may be defined as a state of mind and body characterized by a change in mood towards being miserable, worried, discouraged, irritable, unable to feel emotion, fearful, despondent, hopeless or down in the dumps (Schwartz and Sagi, 1995). This state of mind however is not enough for the diagnosis of depression. In addition, the depressed person must have cluster of associated symptoms which occur over a period of time and are associated with the mood. Such symptoms are poor appetite, sadness, anxiety or "empty" feelings, decreased energy, fatigue, being "slowed down", loss of interest or pleasure in activities that were once enjoyed, including sex; feelings of hopelessness, guilt, and worthlessness, thoughts of death or suicide or suicide attempts, difficulty concentrating, making decisions, or remembering,; restlessness, irritability or excessive crying (Tallis, Eysenck & Mathews, 1997). Of course, not all of these symptoms will be present in a particular person, but several may be reported in order to make a diagnosis of depression (Chinke and Ross, 1998).

The appearance of a depressed individual is often very striking. Such an individual may be extremely agitated wringing his/her hands, twisting a handkerchief, rubbing his/her head.

He/ she may sit in a bland dull way on the periphery of the group, only interacting or responding to other people in a slow and monotonous fashion. His brow may be furrowed and often his eyes will be glassy and red. Such an individual is on the periphery of the group not because he/she has been excluded but rather because he/she has little to say and find no pleasure in socialization (Forehand, McCouds & Brody, 2000).

Working from a basic psychodynamic orientation, Beck (1993) expands previous theories of depression by focusing on the cognitive processes of the depressed. According to Beck (1993) depression is a negative cognitive set consisting of negative attitudes and beliefs with respect to self, the world and the future. Guilt and decreased self-esteem are distorted interpretations of experience. He describes these distorted interpretations of cognition as being negative interpretation of experience, negative evaluation of self or negative expectations of the future.

Rosen field (1990) reveals that in non-traditional marriage (defined as those in which both husband and wife are employed), males reported higher levels of depressive symptoms than females. In the more traditional situation, in which wives are not employed, females had higher rates of depression than males. It was further argued that gender differences in depression have their origins primarily in the social roles of men and women.

The experience of depression is very hard to describe and the victim may well be at a loss as to what 'to tell the therapist. Many people who are depressed are perplexed and confused by their feelings. They cannot understand themselves and they do not expect anyone else to understand them either. All these inadequate feelings and hopelessness are in fact typical symptoms of depression (Busari and Osiki, 2002). Therefore, depression could be defined as the lowering of physical and mental vitality to the point of distress. It impairs ability to sleep, eat, work, and get along with others. It damages self-esteem, self-confidence, and ability to accomplish everyday tasks. The victim not only feels lowland miserable, he/she is physically disabled. Forth physically challenged students, it is double calamity because the disabling condition in itself is pathological which has symptom of falling off of energy.

In particular, depressed individuals demonstrate abnormal (either hyper- or hypo-) activity in neural regions underlying cognitive control and poor behavioral performance during demanding cognitive tasks relative to healthy controls (Holmes & Pizzagalli, 2008; Pizzagalli, Peccoralo, Davidson, & Cohen, 2006).

Reasons for poor performance during cognitive tasks in depression are unclear. The tendency to engage in intrinsic processing, for example, focusing on negative automatic thoughts, has been hypothesized to use cognitive resources that would otherwise be allocated to a cognitive task resulting in poor performance (Christopher & MacDonald, 2005; Holmes & Pizzagalli, 2007; Holmes & Pizzagalli, 2008). Consistent with this hypothesis, relative to controls depressed participants demonstrate a hyper-activation in neural regions implicated in affective processing such as the rostral anterior cingulate after making an initial error on a demanding cognitive task, which is subsequently associated with a failure to recruit dorsolateral prefrontal cortex based cognitive control and poorer subsequent performance on the task (Holmes & Pizzagalli, 2008). Similarly, depressed participants experimentally induced to ruminate, that is, to repetitively focus on themselves and the nature and implications of their negative feelings (Nolen-Hoeksema, 1991; Watkins & Brown, 2002), prior to engaging in a cognitive task experienced more sadness, intrinsic intrusive thoughts, and produced more errors compared to when they were induced to engage in distraction by focusing on external information unrelated to symptoms or feelings (Watkins & Brown, 2002). Furthermore, depressed participants demonstrate difficulty inhibiting irrelevant negative material from working memory (Joormann & Gotlib, 2008). Thus, studies could suggest that depressed individuals engage in increased intrinsic processing that potentially depletes or taxes the ability to engage in controlled processing of information.

Alternately, evidence suggests that poor cognitive performance may be more related to a lack of cognitive resources necessary to do the task independent of engaging in intrinsic processing. Some investigations demonstrate deficits in behavioural performance which coincides with decreased neural activation in brain regions critical for cognitive control in the absence of activity in neural regions implicated in emotional processing (Audenaert et al., 2002; Elliott, et al., 1997; Okada et al., 2003). Depressed adults also demonstrate abnormal (either hyper- or hypo-) activity in dorsolateral prefrontal regions on cognitive tasks relative to controls in the presence of intact behavioural performance (Fitzgerald, et al., 2008; Harvey et al., 2005; Siegle, Ghinassi & Thase, 2007). Though the directionality of these findings is mixed, the consistent identification of this region in relevant studies suggests a fundamental impairment potentially associated with inefficiency or lack of prefrontal resources in depression.

A recent study specifically suggests that the directionality of the abnormality may be clarified by controlling for performance, such that depressed participants display increased dorsolateral prefrontal cortex (DLPFC) in order to maintain the same degree of task performance as controls across increasing levels of task difficulty (Matsuo et al., 2007; Walter, Wolf, Spitzer, & Vasic, 2007) though this finding must be replicated. Potentially, it is still possible for depressed persons to recruit their remaining resources to compensate for overall deficits in cognitive control. In contrast, when cognitive control resources are significantly taxed during difficult tasks depressed individuals cannot compensate because all cognitive resources are being used (Walter et al., 2007). These findings suggest that cognitive deficits in depression could be a result of decreased ability to allocate cognitive resources to demanding tasks.

Depression is a serious mental disorder whereby the physically challenged suffers long periods of sadness and other negative feelings, grief, disappointment and loneliness (Forehand et al., 2000). Seroczynski et al. (2001) opine that adult who experience depression may also lacks skills in various domains, acceptance by sighted mates, and may suffer from impaired memory. It takes the greatest effort to carry on with a normal routine, and sometimes the breakdown is so overwhelming that the depressive person cannot do any worthwhile work (Busari & Ojo, 2005).

Adults with depression tend to adopt a cognitive style that is characterised by negative attitudes towards themselves and future (Gardner et al., 2004). Generally, the distorted cognitions of depressed adults include the following:

- Expecting the worst (pessimism)
- Catastrophising the consequences of negative events.
- Assuming personal responsibility for outcomes and events when unwarranted.
- Selectively attending to the negative aspects of events.

Female physically challenged individuals tend to face a greater risk of depression than the male because they are exposed to more social challenges (Rosenfield, 1990). In fact, depression is a serious yet common psychological condition that changes how one thinks and feels and one's social behaviour and sense of physical well-being. It is on this basis that this paper intends to highlight how to manage depressive symptoms on the performance of cognitive task among the physically challenged students of Rehabilitation Centre, Ibadan, Nigeria

Objectives

The main objective of this study is to use psychotherapeutic intervention in the management of depressive symptoms on the performance of cognitive task among the physically challenged students of Rehabilitation Centre, Ibadan, Nigeria

The specific objectives include;

- (i). To examine the difference between the experimental and the control group in the level of reduction of their signs and symptoms of depression
- (ii). to assess the difference between participants with severe and mild handicapping condition in their response to psychotherapeutic management of depressive symptoms
- (iii). To evaluate the difference in male and female participants in their responses to experimental conditions.

Hypotheses

Three null hypotheses were formulated and tested at 0.05 level of significant

- (i) There is no significant difference between the experimental and the control group in the level of reduction of their signs and symptoms of depression
- (ii) There is no significant difference between participants with severe and mild handicapping condition in their response to therapeutic management of depression symptoms
- (iii) There is no significant difference in male and female participants in their responses to experimental conditions.

Methodology

Research Design: This study adopted a post-test quasi experimental control group design.

Participants: Some selected participants of Rehabilitation Centre, Ibadan, Nigeriaparticipated in the study. They were made up of experimental and the control group.

Out of these 200 participants, 111 (55.5%) were males while 89 (44.5%) were females. A further break down of the demographic information of the respondents, showed that 164 (82%) were Christians, and 36 (18%) were Muslims. Some 25(62.5%) 75(37.50%) had severe disabilities while 91(45.5%) had mild disability. The age range of the participants was from 18 to 27 years with a mean age of 22.5 years.

Instrument: The research instrument used for the study was a self-constructed validated questionnaire tagged as Depression Signs and Symptoms Questionnaire (DSSQ). The questionnaire has two major subdivisions. Section A is designed to collect respondents' demographic information which included gender, age, religion, disability status and type of supportive-mobility.

Section B of the instrument was designed to elicit information on signs and symptoms of depression on the performance of cognitive task. The questionnaire consists of 20 items. The instrument utilizes four-point rating scale ranging from strongly Disagree (SD), Disagree (D), Agree (A) and Strongly Agree (SA) respectively. Hence, the maximum score of the respondents on this instrument is 80 while the minimum is 20.

The reliability index of the instrument was determined through the use of odd-even split- half reliability coefficient of relationship on 3respondents from envisaged population (15 physically challenged students in SS III and 15 physically challenged students in pre-NCE programme). When the two sets of scores were correlated, the Pearson "r" was found to be 0.89.

Procedure: After responding to depression questionnaire used as a screening device, participants were randomly assigned to experimental and control groups.

Based on their scores, they were divided into "mild and severe" depressive condition. Participants were seen in person and were given pre-treatment assessment in the two groups (Experimental and control). Psychotherapeutic exposure was provided over eight one hour sessions, which was standardized across the treatment groups. In six week follow-up the study was carried out in two fold (that is, 100 in the experimental condition and 100 in the control group). The conditions in the two locations used for the experiment were identical.

Treatment: Participants in the experimental group were subjected to eight-one-hour session training which held once a week, for eight consecutive weeks. In view of this, the following sessions were run with the experimental group. The programme consisted of six basic components, presentation of a conceptual framework, identification of a conceptual framework, identification of depression responsiveness of individual subject. It also include identification of relations of depression to well-being, identification of effects of depression symptoms on the performance of cognitive task, developing and testing new skills, application and practice of newly acquired skills , to manage depression and review of previous sessions activities and administration of post-test instrument.

Session 1: General introduction, orientation and essence of the training programme. Definition of depression, incidence, causes and effects of depression on student and their cognitive tasks performance were discussed. Each participant was then asked to identify specific situations which were depressive to him/her as it affects his/her cognitive task performance. Participants were given an overview of the coping skills to be taught during the next session. Pre-test questionnaires were also administered.

Session 2: Participants were introduced to the identification of depression responsiveness of individual subject. Depressive symptoms and personal problems which were known to affect participants' cognitive task performance were highlighted and discussed.

Session 3: Participants were taught reality orientation therapy in managing depression signs and symptoms. Discussion on this also involves cognitive restructuring.

Session 4: Here, identification of influence of depression on cognitive task performance was reviewed. Participants discussed how this contributed to their low mood and low self-esteem. Behaviour modification and habit training programmes to increase appropriate behaviours and decrease poor behaviours were also discussed.

Session 5: Participants were presented with motivating programme in order to revitalize and reactivate the participants to daily activities. They were trained on how to modify their depressive signs and symptoms.

Session 6: Participants were trained on how to develop and test new thing to counter depressive symptoms. Millieu Therapy which involves total effort to encourage participants to become active and responsible was introduced to them.

Session 7: Participants were made to role-play conceived positive skills(s).

Session 8: Review of the programme, acknowledgements of participants and administration of the post-test questionnaires.

The follow-up questionnaire was administered six weeks after the treatment programme. The responses of the participants indicated that the therapy was effective.

Dependent Measure: Participants who participated in the programme completed DS SQ developed by the researchers and achievement test during the week prior to treatment, and six week after the end of the treatment programme. The achievement test consists of 100 multiple-choice in school subjects, such as mathematics, English language and various vocational areas of the participants such as Agricultural Science, and fine Arts.

Data Analysis

T-test statistical analysis was employed in the study to process the data collected. In order to assess the level of cognitive task performance of the subjects the adjusted post-mean score was performed on the achievement test scores.

Results

Table 1: T-Test Post Treatment

Group	N	X	SD	DF	t. cal	t-crit
Experimental	100	135.46	26.09	198	3.24	1.96
Control	100	125.23	30.83			S

**0.05 level of significant

Table 1 shows the comparison between experimental and the control group in their reduction of depression signs and symptoms. The comparison of experimental and the control group in Table 1 indicate 135.46 and 125.23 mean rating respectively. While the experimental group recorded standard deviation of 26.09 the control group posted standard deviation of 30.83. On this premise, the calculated t-value (3.24) was found to be greater than the critical t-value (1.96). This outcome failed to confirm the null hypothesis, hence its rejection.

There is therefore, a significant difference between the experimental and the control group in the level of remediation of signs and symptoms of depression.

Table 2: T-Test Post Treatment Comparison between Subjects with Mild and Severe Disability in the Reduction of Signs and Symptoms of Depression

Group	N	X	SD	DF	t. cal	t-crit	P
Experimental	109	136.32	26.13	198	3.45	1.96	S
Control	91	126.19	30.89				

**0.05 level of significant

The comparison of subjects with severe and mild disability on depression signs and symptoms in Table 2 indicates 136.32 and 126.19 mean rating respectively.

While participants with severe disability have 26.13 standard deviation, the subjects with mild disability have 30.89. With this, the calculated t-value (3.45) was found to be greater than the critical t-value (1.96). This outcome failed to support the null hypothesis.

The hypothesis was thus rejected. There was therefore a significant difference between severe and mild subjects with disability in the reduction of signs and symptoms of depression.

Table 3: T-Test Post Treatment Comparison between Male and Female Subjects in the Reduction of Signs and Symptom of Depression

Group	N	X	SD	DF	t.cat	t-crit	P
Male	111	133.7828.32	198	1.77	1.96	NS	
Female	89	128.27 28.47					

**0.05 level of significant

From Table 3, the mean score of the males(133.78) is higher than the females' score (128.27). However, their standard deviation is lower, 28.32 and 28.47 respectively. This gives rise to t-calculated value of 1.77 and t-critical value of 1.96. Hence, the null hypothesis is accepted. Therefore, there was no significant difference between male and female subjects in the reduction of signs and symptoms of depression.

Table 4: Adjusted X and Y Means Comparison of Severe Mild Disability Groups Experimental and Control Based on Cognitive Task Performance

Variables Categories	Pre-Test			Post-test Adjust			Mean Difference
	N	X	SD	N	Y	SD	
Experimental (Severe)	54	32.3	6.05	54	50.27	6.23	+18.76
Experimental (Mild)	46	36.4	7.09	46	50.137.87		+15.00
Control (Severe)	55	32.6	5.89	55	33.114.25		+1.7
Control (Mild)	45	36.3	7.59	45	37.686.67		+1.65

**0.05 level of significant

In Table 4, the compared means outcome for experimental and the control groups were juxtaposed as could be inferred from the Table. Participants in experimental group exhibited better cognitive task performance as manifested by reduced signs and symptoms of depression than the control group. High means score in this case indicated better cognitive task performance.

Discussion

The results obtained in this study provided support for the use of therapeutic approach in the management of depression-signs and symptoms in the physically challenged students to improve their cognitive task performance. The data showed reduction in the level of signs and symptoms of depression as a result of the treatment programme. The results following the treatment programme revealed that the group exposed to experimental conditions indicate mean-score of (26.09) as against the control group with mean scores of 30.83. Further, reductions in participants' level of signs and symptoms of depression were equally observed six weeks after termination of the treatment. This result lend support to the findings of Forehand et al. (2000) who opined that adult who experience depression may also lack skills in various domains, acceptance by sighted mates and may suffer from impaired memory. Busari and Ojo (2005) added that the greatest efforts to carry on with a normal routine, and sometimes the breakdown are so overwhelming that the depressive person cannot do any worthwhile work. With this result, the treatment programme has provided the participants with required skills to reduce signs and symptoms of depression.

The result of the second tested hypothesis also indicates that "severe" and "mild" participants exhibit differences in their level of reduction of signs and symptoms of depression. A critical look at the Table further reveals that "severe" participants have a better reduction than their "mild" counterparts in their level of signs and symptoms of depression. The result obtained from the second hypothesis supported the findings of Schwartz and Sagi (1995) who defined depression as a state of mind and body characterized by a change in mood towards being miserable, worried, discouraged, irritable, unable to feel emotion, fearful, despondent, hopeless, or down in the dumps.

However, participants with "severe" signs and symptoms of depression benefited from the training programmed loaded with a lot of skills meant to stabilize the mood of an individual, and restore pessimistic with optimistic feelings and trained to replace negative with positive coping skills.

From the analysis of the data carried out on the third hypothesis, it reveals that the hypothesis should be accepted. In other words, the findings show that there was no significant difference in the reduction level of both male and female - participants on their signs and symptoms of depression. This finding corroborated that of Rosen field (1990) who avers that in non-traditional marriage, males reported higher level of depressive symptoms than did females. He further states that in more tradition situation, in which wives are not employed, females had higher rates of depression than males. The implication of this assertion is that sex differences, in depression have their origins primarily in the social roles of men and women.

The result indicated that participants in the experimental group exhibited better cognitive task performance due to reduced depression level than those in control group. This finding supported the findings of Beck (1993) who presented the finding that depression is a negative cognitive set consisting of negative attitudes and beliefs regarding self, the world and the future. Guilt and decreased self-esteem are distorted interpretations of experience. He described these distorted interpretations of cognition as being negative interpretations of experience, negative expectations of the future. According to him, it follows that, the more the people worry about possible threats to self, the more anxious and depressed they become.

Conclusion

The findings of this study had amply demonstrated the effectiveness of therapeutic management approach on depressive symptomatology on the performance of cognitive task among the physically challenged students. It has also stated specific signs and symptoms which can occur over a period of time in order to make a diagnosis. It would be appropriate to recommend that:

- School counsellors and special educators should be saddled with the responsibility of explaining the symptoms and the mechanisms of depression to the clients especially the students with special needs in terms they can readily understand to foster reassurance, confidence and high self-esteem.
- The therapist should take pain to point out that the problem of psychoneurosis is not unusual, but indeed shared by many other people.

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